

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059140 A1

(51) International Patent Classification⁷: **C12N 15/53**,
9/02, 5/10, 15/82, C12P 7/64, A01H 5/00, C07K 14/195,
C12N 15/31

(21) International Application Number:
PCT/CA2004/002156

(22) International Filing Date:
17 December 2004 (17.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2,450,000 18 December 2003 (18.12.2003) CA

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: TRANSGENIC PLANTS WITH REDUCED LEVEL OF SATURATED FATTY ACID AND METHODS FOR MAK-
ING THEM

(57) **Abstract:** The present invention provides transgenic plants with reduced levels of saturated fatty acids in the seed oil and
methods of making these plants. The transgenic plants developed through this method contain reduced levels of saturated fatty acids
in seed oil due to expression of a prokaryotic delta-9 desaturase enzyme (i.e. an enzyme that introduces cis double bonds at the
delta-9 position of saturated fatty acids) operably linked with an endoplasmic reticulum retention and retrieval signal sequence. One
example of the invention is a plant expressing a heterologous delta-9 desaturase enzyme from cyanobacterium *Anacystis nidulans*,
which converts lipid-bound 16:0 and 18:0 fatty acids into corresponding 16:1 and 18:1, in operative linkage with a KKSS (SEQ ID
NO:5) endoplasmic reticulum retention and retrieval signal sequence.

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